

**WHAT IS CLAIMED IS:**

1. An autothermal aerobic digestion system having closed defoaming system, the digestion system comprising:

5 a digester having a corn shaped bottom and an upper lid, the digester being of an insulator;

a suction valve installed at a bottom of the digester, for discharging wastewater;

10 at least two nipples dispersedly installed at an inner side of the digester, for returning the wastewater from the suction valve to the digester for recycling;

a pump for providing a power for recycling the wastewater through the nipples;

15 an aeration venturi and a defoamer venturi connected to the discharging nipples for aeration and defoaming during the recycling of the wastewater;

a liquid defoaming apparatus or a mechanical defoaming apparatus installed at an upper side of the digester, for primarily getting rid of foam generated in the wastewater;

20 a first foam sensor installed at a predetermined level of the inner side of the digester, for driving the defoaming apparatus when the foam contacts the first foam sensor;

a second foam sensor installed at a level higher than the first sensor, for stopping operation of the defaming apparatus  
25 when the foam contacts the second foam sensor;

a foam bypass having a passage connected to the second foam sensor, for bypassing the foam when the foam contacts the second foam sensor and having a passage connected to the defoamer venturi;

5        a hose for making extra foam overflow therethrough when the defoamer venturi cannot process all of the foams; and

a foam collector pipe connected to the hose and connected to the aeration venturi for returning the foam to the digester.

10        2. The autothermal aerobic digestion system of claim 1, wherein the aeration venturi comprises:

a liquid inlet;

an air intake;

an outlet of an air containing liquid; and

15        an aeration fitting valve.

3. The autothermal aerobic digestion system of claim 1, wherein the defoamer venturi comprises:

a liquid inlet;

20        an air intake;

an outlet of an air containing liquid;

an aeration fitting valve; and

a foam outlet connected the hose.

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